The Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1. **(Currently amended)** A process for hydrogen peroxide plasma sterilization comprising:

(a) inserting at least one primary container containing a temperature-sensitive material into a sterilization treatment chamber;

(b) lowering the pressure in the treatment chamber to create a vacuum;

(c) injecting, at least one time, hydrogen peroxide into the chamber;

(d) lowering the pressure in the treatment chamber to reestablish a vacuum;

(e) generating a plasma; and

(f) ventilating the chamber;

wherein the chamber temperature is less than 39°C throughout the process**, the temperature-sensitive material is sterilized and stable, and wherein the pressure in step (d) is about 100 to 800 mtorr**.

2. **(Previously presented)** The process of claim 1, wherein the pressure in step (b) is about 100 to 800 mtorr.

3. **(Previously presented)** The process of claim 1, wherein step (c) is performed from between 1 and 60 minutes.

4. **(Previously presented)** The process of claim 1, wherein prior to step (d) a hydrogen peroxide diffusion step is performed simultaneously with ventilation.

5. **(Previously presented)** The process of claim 1, wherein prior to step (d) a hydrogen peroxide diffusion step is performed without ventilation.

6. **(Previously presented)** The process of claim 4, wherein the hydrogen peroxide diffusion step is performed from between 1 and 60 minutes.

7. **(Previously presented)** The process of claim 5, wherein the hydrogen peroxide diffusion step is performed from between 1 and 60 minutes.

8. **(Previously presented)** The process of claim 1, wherein the temperature of the temperature-sensitive material does not rise above 40°C during the sterilization process.

9. **(Previously presented)** The process of claim 1, wherein the temperature-sensitive material comprises biological materials.

10. **(Previously presented)** The process of claim 9, wherein the biological materials are proteins, peptides, nucleic acids, lipids, or cellular materials.

11. **(Previously presented)** The process of claim 9, wherein the biological material is a fibrogen containing solution.

12. **(Previously presented)** The process of claim 9, wherein the biological material is a Factor XIII containing solution.

13. **(Previously presented)** The process of claim 9, wherein the biological material is a thrombin containing solution.

14. **(Previously presented)** The process of claim 9, wherein the biological material comprises the components of tissue glue.

15. **(Previously presented)** The process of claim 9, wherein the biological material comprises the components of fibrin glue.

16. **(Previously presented)** The process of claim 1, wherein the temperature-sensitive material comprises non-biological materials.

17. **(Previously presented)** The process of claim 1, wherein the process is performed more than one time.

18. **(Previously presented)** The process of claim 1, wherein before step (b), a preplasma step is performed comprising:

- lowering the pressure in the treatment chamber to create a vacuum;
- applying a preplasma; and
- ventilating the chamber.

19. **(Previously presented)** The process of claim 18, wherein the pressure is about 100 to 800 mtorr.

20. **(Previously presented)** The process of claim 18, wherein the preplasma is applied for about 1 to 30 minutes.

21. **(Previously presented)** The process of claim 18, wherein the ventilation step is no greater than 5 minutes.

22. **(Previously presented)** The process of claim 1, wherein the primary container is enveloped at least one time with materials partially permeable to hydrogen peroxide.

23. **(Previously presented)** The process of claim 1, wherein the primary container containing the temperature-sensitive material is placed in a secondary container.

24. **(New)** The process of claim 1, wherein the chamber temperature is between 20-39°C.

25. **(New)** The process of claim 24, wherein the chamber temperature is between 25-35°C.